



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,826	03/06/2006	Kenichi Miyoshi	009289-06115	2110

52989 7590 08/19/2009

Dickinson Wright PLLC
James E. Ledbetter, Esq.
International Square
1875 Eye Street, N.W., Suite 1200
Washington, DC 20006

EXAMINER

BERHANE, YOSIEF H

ART UNIT	PAPER NUMBER
----------	--------------

2419

MAIL DATE	DELIVERY MODE
-----------	---------------

08/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,826	Applicant(s) MIYOSHI, KENICHI	
	Examiner YOSIEF BERHANE	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 7-20 have been examined and are pending.

Response to Arguments:

2. On page 9 of Applicants Response, with regards to newly amended independent claims 7 and 12, applicant argues on page 7, that Gupta does not disclose adding a delay to a speech packet in its transmission on a data channel. Further, on page 9, still regarding amended claims 7 and 12, applicant further argues that reference Gupta does suggest adding a transmission delay to a speech packet so as to degrade its quality of the speech packet and does not add a transmission delay to a normal packet so as to maintain the quality of the normal packet.
3. **Applicants arguments are persuasive, boot moot in light of new prior art rejection.**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
5. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
6. Claims 7-13, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Publication 2004/0022237 to Elliott et al. (hereinafter Elliott) and further in view of Publication 2003/0202475 to Chen et al.

7. **As per claim 7 and 12**, Elliot teaches a base station apparatus that transmits a speech packet and a normal packet other than the speech packet on a packet channel (Paragraph 0030, Elliott discloses that gateway site (claimed base station) transmits IP packets (claimed packet channel) which includes voice (claimed speech packet) and data (claimed normal packet) traffic),
8. the base station apparatus comprising: a detecting section that detects a type of a transmission packet (Paragraph 0941, Elliott discloses a data detection process to detect the media type of the call traffic. The media type of the call traffic can include voice and data.);
9. Elliot teaches when the detected type shows the speech packet and when the detected type shows the normal packet, transmitted on a packet channel (paragraph 0030, Elliot discloses that a detection process detects the media type of the call traffic. The media type can include voice and data)
10. Elliott does not disclose expressly: a delay section that adds a transmission delay to the speech packet transmitted on the packet channel to degrade the quality of the speech packet and that does not add a transmission delay to the normal packet transmitted on the packet channel to maintain the quality of the normal packet.
11. Chen discloses, in Paragraph 0049, RLP/data service data (claimed normal packet) is given priority over voice (claimed speech packet), since voice is dimmed (claimed degrade quality) whenever RLP data is present, which may have negative impact on voice quality. Note, in paragraph 0008, Chen discloses that a dim command is issued to reduce the rate (claimed add transmission delay) of the variable-rate data. As Chen further specifies in paragraph 0028, variable data rate may be voice (claimed speech packet), and data services data/RLP data may be

Art Unit: 2419

IP (claimed normal packet). Note, The RLP data is given priority, thus a transmission delay is not added to the RLP data (claimed normal packet).

12. Elliot and Chen are analogous art because they are from the same field of endeavor dealing specifically with communicating voice and data traffic over a shared channel.
13. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the system of Elliot by adding a transmission delay to voice to degrade the quality, and not adding a transmission delay to a normal packet to maintain the quality.
14. The suggestion/motivation for doing so would have been to providing flexible prioritized services and reliable communication networks by balancing the quality of variable-rate data signal and maintaining data services (Paragraph 0008, Chen).
15. Therefore, it would have been obvious to combine Chen with Elliot for the benefit of providing flexibility and reliability in a shared communication network, to obtain the invention as specified in claim 7 and 12.
16. **As per claim 8**, the combination of Elliot and Chen teach wherein the speech packet comprises a VoIP packet (Paragraph 0520, Elliott discloses a VoIP network architecture)
17. and the normal packet comprises an IP packet (Paragraph 0030, Elliott discloses that the data network routes internet protocol (IP) packets for transmission of voice and data traffic).
18. **As per claim 9**, the combination of Elliot and Chen teach wherein the detecting section detects the type based on a protocol or a flag in a header of the transmission packet (Paragraph

Art Unit: 2419

1047, Elliott discloses that Real Time Protocol (claimed protocol) adds a time stamp (claimed flag) and a header that distinguishes whether an IP packet is data or voice).

19. **As per claim 10**, the combination of Elliot and Chen teach wherein the detecting section detects the type based on a generation period of the transmission packet (RTP adds a time stamp (claimed generation period) and a header that distinguishes whether an IP packet is data or voice).
20. **As per claim 11**, the combination of Elliot and Chen teach wherein the delay section adds a transmission delay to the speech packet (Chen discloses, in Paragraph 0008, that High priority data awaiting transmission may result in a dim command being issued to reduce the rate (claimed add transmission delay) of the variable-rate data, thus making room for the data services data. Note, as specified in paragraph 0028, variable data rate may be voice (claimed speech packet))
21. according to a priority of a communication terminal apparatus receiving the speech packet (Paragraph 0024, Chen discloses that a user may want a minimum guarantee of service (GOS) or quality of service (QOS), which may be contracted between users and carriers in a wireless system, to ensure that a minimum average throughput, or other quality metric, is obtained).
22. **As per claim 13**, the combination of Elliot and Chen teach wherein the delay section degrades the quality of the speech packet to a level a user cannot stand listening (Paragraph 0038, Chen discloses voice quality may be affected when the frequency of dim commands increases. Dim commands are not restricted to reducing full rate data to half-rate. Alternate embodiments may provide dim commands that allow any type of control over the rate generated, thus dim commands may be used to reduce voice quality to an unacceptable level.),

23. and maintains the quality of the normal packet at a level the user can stand listening (Paragraph 0049, Chen discloses that RLP data is given priority over voice, since voice is dimmed whenever RLP data is present).
24. **As per claim 18**, the combination of Elliot and Chen teach wherein the delay section adds the transmission delay to the speech packet (Paragraph 0008, Chen discloses that a dim command is issued to reduce the rate (claimed add transmission delay) of the variable-rate data (claimed speech packet))
25. to be received in a communication terminal apparatus (Paragraph 0029, Chen discloses mobile station where signals are received and transmitted)
26. to which an amount of data exceeding a reference data amount is sent (Paragraph 1934, Elliot discloses that Direct Termination Overflow allows a customer to pre-define termination points for calls that exceed the capacity of the customer's network),
27. the reference data amount being set per the priority (Paragraph 0008, Chen discloses data from data services is prioritized. High priority data awaiting transmission may result in a dim command being issued. Further, in paragraph 0038, Chen discloses that a dim command is issued to temporarily cap the amount of data generated).
28. **As per claim 19**, the combination of Elliot and Chen teach wherein the reference data amount is set lower for a lower priority (Paragraph 0008, Chen discloses that data services data is categorized into three or more priority levels. High priority data can preempt variable-rate data. Medium priority data may result in a dim command reducing the variable-rate data. Low priority data may wait for the next available space, without reducing the rate of the variable-rate data).

29. **As per claim 20**, the combination of Elliot and Chen teach wherein the delay section adds the transmission delay for the speech packet (Paragraph 0008, Chen discloses that a dim command is issued to reduce the rate (claimed add transmission delay) of the variable-rate data (claimed speech packet))
30. to be received in a communication terminal (Paragraph 0029, Chen discloses mobile station where signals are received and transmitted)
31. of a lower priority (Paragraph 0024, Chen discloses A user may want a minimum guarantee of service (GOS) or quality of service (QOS), which may be contracted between users and carriers in a wireless system, to ensure that a minimum average throughput, or other quality metric).
32. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Elliot and Chen, and further in view of Patent 4,052,568 to Jankowski.
33. **As per claim 14**, the combination of Elliot and Chen teach wherein the detecting section detects the transmission packet (Paragraph 0941, Elliott discloses a data detection process to detect the media type of the call traffic. The media type of the call traffic can include voice and data.),
34. generated in the generation period (RTP adds a time stamp (claimed generation period) and a header that distinguishes whether an IP packet is data or voice),
35. the combination of Elliot and Chen do not disclose expressly: detecting the transmission packet close to a speech packet encoding period, as the speech packet.
36. Jankowaski discloses, in Col. 1, lines 37-44, a detector having a fixed threshold level to compare digitally encoded samples (claimed encoding period) of a signal on a channel with the fixed threshold level. If the samples of the signal are above the threshold level, it is assumed the signal represents voice.

Art Unit: 2419

If the samples of the signal are equal to or below the threshold level, it is assumed that the signal represents noise

37. Elliot, Chen and Jankowaski are analogous art because they are from similar problem solving areas dealing specifically with detecting and processing a type of received digital communication.

38. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify combination of Elliot and Chen by detecting a speech packet by using a speech packet encoding period, as suggested by Jankowaski.

39. The suggestion/motivation for doing so would have been to provide sufficient level of service in a network by utilizing the ability to recognize speech thereby improving communication performance (Col. 1, lines 24 -34, Jankowaski).

40. Therefore, it would have been obvious to combine Jankowaski with Chen and Elliot for the benefit of providing improved communication performance in a communication system, to obtain the invention as specified in claim 14.

41. **As per claim 15**, the combination of Elliot, Chen and Jankowaski teach wherein the detecting section detects the transmission packet (Paragraph 0941, Elliott discloses a data detection process to detect the media type of the call traffic. The media type of the call traffic can include voice and data.),

42. generated in the generation period (RTP adds a time stamp (claimed generation period) and a header that distinguishes whether an IP packet is data or voice),
43. equal to or less than a threshold, as the speech packet (Jankowaski discloses, in Col. 1, lines 37-44, that voice switches employ a detector having a fixed threshold level to compare digitally encoded samples of a signal on a channel with the fixed threshold level. If the samples of the signal are above the threshold level, it is assumed the signal represents voice. If the samples of the signal are equal to or below the threshold level, it is assumed that the signal represents noise).
44. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Elliot and Chen and further in view of Patent 6,363,429 to Ketcham
45. **As per claim 16**, the combination of Elliot and Chen teach wherein the detecting section detects the type based on a generation period of the transmission packet (RTP adds a time stamp (claimed generation period) and a header that distinguishes whether an IP packet is data or voice)
46. the combination of Elliot and Chen do not disclose expressly: detecting the type based on a jitter of the transmission packet.
47. Ketcham discloses, in Col. 2, lines 43-57, calculating a data traffic signature for a data stream using a packet jitter or variation of a data stream, where the calculated signature is used to determine whether the calculated data traffic signature matches a known data traffic signature for a known type of data stream. Further, in Col. 12, lines 48-53, Ketcham discloses that if data packet jitter is less than 10% of the data packet spacing, then a data stream is multimedia stream, else it is not a multi-media data stream.

Art Unit: 2419

48. Elliot, Chen and Ketcham are analogous art because they are from similar problem solving areas dealing specifically with detecting and processing a type of received digital communication.
49. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Elliot and Chen by detecting a type of transmission packet by using jitter information, as suggested by Ketcham.
50. The suggestion/motivation for doing so would have been to provide Quality-of-Service to multimedia communication networks (Col. 2, lines 31-35).
51. Therefore, it would have been obvious to combine Ketcham with Chen and Elliot for the benefit of providing improved QoS, to obtain the invention as specified in claim 16.
52. **As per claim 17**, the combination of Elliot, Chen and Ketcham teach wherein the detecting section detects the transmission packet generated in the generation period (RTP adds a time stamp (claimed generation period) and a header that distinguishes whether an IP packet is data or voice)
53. equal to or less than a first threshold and having the jitter equal to or less than a second threshold, the second threshold being less than the first threshold as the speech packet (Col. 12, lines 48-53, Ketcham discloses that If data packet spacing is more than 10 times data packet transport time, and the data packets vary by no more than 20% in size (claimed first threshold), and data packet jitter is less than 10% of the data packet spacing (claimed second threshold), then a data stream is multimedia stream (claimed speech packet)),

Art Unit: 2419

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached at (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/

Examiner, Art Unit 2419

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2419